Patent Claims:

1. A cylinder lock, especially for motor vehicles, comprising a housing in the inner cylindrical cavity of which there is arranged a cylinder core that is equipped with a key channel and spring-loaded tumblers, wherein, when no appropriate key is fully inserted into the key channel, blocking projections of the tumblers protrude into a blocking groove formed in a member in which the cylindrical core is supported for turning and, when the appropriate key is fully inserted, the blocking projections of the tumblers do not extend beyond the periphery of the cylindrical core, wherein the cylinder lock is further provided with means for coupling the cylindrical core with an output member of the cylinder lock when the cylindrical core is being turned by the appropriate key, and for uncoupling of the cylindrical core from the output member of the cylinder lock when the cylinder core is turned by means of an inappropriate key or forcibly by a foreign body, characterized in that the cylindrical inner cavity of the housing (1) is provided with through-turnable annular grooves (11), and that at least one rib (12) which delimits the adjacent through-turnable groove (11) at that axial side that lies opposite to the direction (o) of a disengagement axial displacement of the cylindrical core (2) from the output member (3) is interrupted by at least one blocking groove (13), while blocking groove lateral surfaces (130, 131) diverge in the direction (o) of the disengagement axial displacement of the cylinder core (2) from the output member (3).

2. Cylinder lock according to claim 1, characterized in that that the housing (1) is composed of two housing halves (1', 1") that are rigidly connected with one another.

3. Cylinder lock according to claim 1 [or 2], characterized in that the inner cylindrical cavity of the housing (1) is provided with at least one support ring groove (151, 152) in which there is received an outer collar (251, 252) of the cylindrical core (2) with an axial leeway (a), wherein the axial leeway (a) at least corresponds to a distance (b) of the axial displacement that is necessary for the disengagement of the coupling (30).

4. Cylinder lock according to claim 1 [or 2], characterized in that the blocking grooves (13) for a pair of tumblers (20, 20') are arranged in the housing (1) at 180° with respect on one another.

5. Cylinder lock according to claim 1 [or 2], characterized in that the blocking groove lateral surfaces (130, 131) are constituted by planar facets which enclose the same acute angle (β) with a symmetry plane of the blocking groove (13).

6. Cylinder lock according to [at least one preceding] claim 1, characterized in that an axial extension (23) of the cylindrical core (2) is provided with a first axial abutment (25) which unequivocally determines the position of first coupling elements (301) of the entraining member (31) when in engagement with second coupling elements (231) of the axial extension (23) of the cylinder core (2), and the cylinder core (2) is provided with a second axial abutment (26) which unequivocally determines the position of the first coupling elements (301) of the entraining member (31) when out of engagement with the second coupling elements (231) of the axial extension (23).

7. Cylinder lock according to claim 6, characterized in that the second coupling elements (231) are constituted by a first radial recess (271) and by an oppositely located second radial recess (272) which are formed in an annular collar (27) provided on the axial extension (23), wherein there is formed between the annular collar (27) and an inner offset surface (24) of the cylinder core (2) an annular groove (28) a first annular lateral surface (281) of which that faces toward the inner offset surface (24) constitutes the second axial abutment (26), wherein the first coupling elements (301) are constituted by inner radial projections (301') of the entraining member (31).

8. Cylinder lock according to claim 7, characterized in that a diameter (D2) of the axial extension (23) at least behind the annular collar (23) is greater than a diameter (D1) of a bottom of the annular groove (28), that concave end faces (313) of the radial projections (301') of the entraining member (31) contact the bottom of the annular groove (28), wherein the first radial recess (271) is recessed into the axial extension (23) at least to the bottom of the annular groove (28) and its second annular groove lateral surface (282) that faces toward the output member (3) constitutes the first axial abutment (25), while the second radial recess (272) is recessed into the axial extension (23) below the bottom

of the annular groove (28) and is terminated from one side at the first annular groove lateral surface (281), while it merges in the opposite direction into a second slip-on groove (233) the bottom of which is spaced from an oppositely situated surface of the axial extension (23) at the maximum by a distance (L) which is equal to the diameter (D1) of the bottom of the annular groove (28).

9. Cylinder lock according the claim 7, characterized in that the diameter (D2) of the axial extension (23) behind the annular collar (27) is equal to or smaller than the diameter (D1) of the annular groove 28 and the first axial abutment (25) is constituted by an end face of a securing disk or of a stop member or a nut which is arranged on the axial extension (23) behind the annular collar without any leeway.

10. Cylinder lock according to claim 7, characterized in that a return spring (4) is accommodated in a blind bore (232) of the axial extension (23).

11. A cylinder lock, especially for motor vehicles, for operating an output member, comprising a housing bounding an inner cylindrical cavity; a cylinder core received in said cylindrical cavity for turning and axial displacement and having a key channel and a plurality of transverse tumbler passages; means for coupling said cylindrical core with the output member when said cylindrical core is being turned by the appropriate key and for uncoupling said cylindrical core from the output member when said cylinder core is turned by means of an inappropriate key or forcibly by a foreign body; means including respective ribs for bounding a plurality of through-turnable annular grooves that open into said cylindrical inner cavity of said housing; and means for interrupting at least one of said ribs that delimits the adjacent through-turnable groove at that axial side that lies opposite to the direction of a disengagement axial displacement of said cylindrical core from the output member to form at least one blocking groove, said interrupting means including blocking groove lateral surfaces that diverge in said direction; and a plurality of spring-loaded tumblers movably received in said tumbler passages and including respective blocking projections at least one of which protrudes into said blocking groove of said housing when no appropriate key is fully inserted into said key channel and which do not extend beyond the periphery of said cylindrical core when the appropriate key is fully inserted.

12. The cylinder lock according to claim 11, wherein said housing is composed of two housing halves that are rigidly connected with one another.

13. The cylinder lock according to claim 11, and further comprising means for defining at least one support ring groove opening into said inner cylindrical cavity of said housing; and wherein said cylindrical core includes an outer collar received in said support ring groove with an axial leeway that at least corresponds to a distance of the axial displacement that is necessary for the disengagement of said coupling means.

14. The cylinder lock according to claim 11, wherein said housing includes an additional blocking groove situated at 180° with respect to said one blocking groove, said tumblers being associated with one another in respective pairs such that each of said tumblers of each of said pairs cooperates with a different one of said blocking grooves.

15. The cylinder lock according to claim 1, wherein said blocking groove lateral surfaces are constituted by planar facets that enclose the same acute angle with a symmetry plane of said one blocking groove..

16. The cylinder lock according to claim 11, wherein said coupling means includes an entraining member having first coupling elements; wherein said cylindrical core includes an axial extension that is provided with second coupling elements and a first axial abutment which unequivocally determines the position of said first coupling elements when in engagement with said second coupling elements of said axial extension; and wherein said cylinder core includes a second axial abutment which unequivocally determines the position of said first coupling elements of said entraining member when out of engagement with said second coupling elements of said axial extension.

17. The cylinder lock according to claim 16, wherein said core has an inner offset surface; wherein said extension includes an annular collar and said second coupling elements are constituted by means for defining a first radial recess and by means for defining an oppositely located second radial recess in said annular collar; wherein an annular groove is formed between said annular collar and said inner offset surface, a first

annular lateral surface of which that faces toward the inner offset surface constitutes the second axial abutment, and wherein said entraining member includes inner radial projections constituting said first coupling.

18. The cylinder lock according to claim 17, wherein said axial extension has a diameter at least behind the annular collar that is greater than a bottom diameter of said annular groove; wherein said radial projections of said entraining member have concave end faces that contact the bottom of the annular groove; and wherein said first radial recess is recessed into said axial extension at least to the bottom of the annular groove and its second annular groove lateral surface that faces toward the output member constitutes the first axial abutment, while said second radial recess is recessed into said axial extension below the bottom of the annular groove and is terminated from one side at the first annular groove lateral surface, while it merges in the opposite direction into a second slip-on groove the bottom of which is spaced from an oppositely situated surface of the axial extension at the maximum by a distance which is equal to the diameter of the bottom of the annular groove.

19. The cylinder lock according the claim 17, wherein the diameter of the axial extension behind the annular collar is at most equal to the diameter of said annular groove; and further comprising a securing member mounted on said axial extension behind said annular collar without any leeway and having an end face constituting said first axial abutment.

20. The cylinder lock according to claim 17, wherein said axial extension has a blind bore; and further comprising a return spring accommodated in said blind bore